IN THE CLAIMS:

Kindly amend claims 1, 5, 8, 12, 15, 19, 21, 22 and 26 as follows. A detailed listing of all claims is as follows.

Claim 1 (Currently Amended): A parameter setting apparatus for setting a recording parameter for use in optical information recording on a recording medium, by use of any one of a plurality of setting areas previously provided on the recording medium, the apparatus comprising:

a checking device for checking whether a special detected signal is optically detected or not from the setting areas;

a ~~retrieving~~ locating device for ~~retrieving~~ locating a non-used area that is the setting area where no special detected signal is detected, of the setting areas, based on the check result of the checking device;

a mark signal recording device for optically recording a mark signal for obtaining the special detected signal optically, in the ~~detected~~ non-used setting area;

a setting signal recording device for recording a setting signal for setting the recording parameter, at least, in the non-used setting area excluding an area where the mark signal is recorded; and

a setting device for setting the recording parameter by optically detecting the recorded setting signal.

Claim 2 (Original): The parameter setting apparatus according to Claim 1, wherein

the mark signal recording device records the mark signal at a position detected prior to the setting signal recorded in the non-used setting area.

Claim 3 (Original): The parameter setting apparatus according to Claim 1, wherein the mark signal recording device repeats the recording of the mark signal at a predetermined interval during the recording of the setting signal.

Claim 4 (Original): The parameter setting apparatus according to Claim 2, wherein the mark signal recording device repeats the recording of the mark signal at a predetermined interval during the recording of the setting signal.

Claim 5 (Currently Amended): The parameter setting apparatus according to Claim 3, wherein the checking device further comprises:

a position retrieving device for retrieving a predicted position of the setting area on the recording medium where the special detected signal is to be optically detected;

a first moving device for moving an executing device for detecting the setting signal and the special detected signal, from the retrieved predicted position, to a retrieval starting position on the recording medium distant from there at least by a distance corresponding to the predetermined interval; and

a second moving device for repeating an operation of further moving the executing device again from the special detected signal-detected position on the recording medium to a position on the recording medium distant from there at least by a distance corresponding to the predetermined interval, when the special detected signal is detected while the executing device is

moved from the retrieval starting position to the predicted position, and further moving the executing device to the predicted position, from a position of the executing device after the above further moving used as the retrieval starting position, so as to check whether the special detected signal is detected or not; and

the ~~retrieving~~ locating device regards the setting area adjacent to the setting area where the special detected signal detected last is recorded as the non-used setting area, when none of the special detected signal is detected while the executing device is moved from the retrieval starting position to the predicted position.

Claim 6 (Original): The parameter setting apparatus according to Claim 1, wherein the recording parameter is intensity of an optical beam for use in the information recording.

Claim 7 (Original): The parameter setting apparatus according to Claim 1, further comprising

a recording device for executing the information recording by use of the set recording parameter.

Claim 8 (Currently Amended): A parameter setting method for setting a recording parameter for use in optical information recording on a recording medium, using any one of a plurality of setting areas previously provided on the recording medium, the method comprising:

a checking process for checking whether a special detected signal is optically detected or not from the setting areas;

a ~~retrieving~~ locating process for ~~retrieving~~ locating a non-used area that is the setting area where no special detected signal is detected, of the setting areas, based on the check result in the checking process;

a mark signal recording process for optically recording a mark signal for obtaining the special detected signal optically, in the ~~detected~~ non-used setting area;

a setting signal recording process for recording a setting signal for setting the recording parameter, at least, in the non-used setting area excluding an area where the mark signal is recorded; and

a setting process for setting the recording parameter by optically detecting the recorded setting signal.

Claim 9 (Original): The parameter setting method according to Claim 8, wherein

in the mark signal recording process, the mark signal is recorded at a position detected prior to the setting signal recorded in the non-used setting area.

Claim 10 (Original): The parameter setting method according to Claim 8, wherein

in the mark signal recording process, the recording of the mark signal is repeated at a predetermined interval during the recording of the setting signal.

Claim 11 (Original): The parameter setting method according to Claim 9, wherein

in the mark signal recording process, the recording of the mark signal is repeated at a predetermined interval during the recording of the setting signal.

Claim 12 (Current Amended): The parameter setting method according to Claim 10, wherein the checking process further comprises:

a position retrieving process for retrieving a predicted position of the setting area on the recording medium where the special detected signal is to be optically detected;

a first moving process for moving an executing device for detecting the setting signal and the special detected signal, from the retrieved predicted position, to a retrieval starting position on the recording medium distant from there at least by a distance corresponding to the predetermined interval; and

a second moving process for repeating an operation of further moving the executing device again from the special detected signal-detected position on the recording medium to a position on the recording medium distant from there at least by a distance corresponding to the predetermined interval, when the special detected signal is detected while the executing device is moved from the retrieval starting position to the predicted position, and further moving the executing device to the predicted position, from a position of the executing device after the above further moving used as the retrieval starting position, so as to check whether the special detected signal is detected or not; and

in the ~~retrieving~~ locating process, the setting area adjacent to the setting area where the special detected signal detected last is recorded, is regarded as the non-used setting area, when none of the special detected signal is detected while the executing device is moved from the retrieval starting position to the predicted position.

Claim 13 (Original): The parameter setting method according to Claim 8, wherein

the recording parameter is intensity of an optical beam for use in the information recording.

Claim 14 (Original): The parameter setting method according to Claim 8, further comprising

a recording process for executing the information recording by use of the set recording parameter.

Claim 15 (Currently Amended): An information recording medium in which a setting program is recorded in a readable way by a setting computer, which is included in a recording parameter setting apparatus for setting a recording parameter for use in optical information recording on the recording medium, using any one of a plurality of setting areas previously provided on the recording medium, the setting program causing the setting computer to function as:

a checking device for checking whether a special detected signal is optically detected or not from the setting areas;

a ~~retrieving~~ locating device for ~~retrieving~~ locating a non-used area that is the setting area where no special detected signal is detected, of the setting areas, based on the check result of the checking device;

a mark signal recording device for optically recording a mark signal for obtaining the special detected signal optically, in the ~~detected~~ non-used setting area;

a setting signal recording device for recording a setting signal for setting the recording parameter, at least, in the non-used setting area excluding an area where the mark signal is recorded; and

a setting device for setting the recording parameter by optically detecting the recorded setting signal.

Claim 16 (Original): The information recording medium according to Claim 15, wherein the mark signal recording device records the mark signal at a position detected prior to the setting signal recorded in the non-used setting area.

Claim 17 (Original): The information recording medium according Claim 15, wherein the mark signal recording device repeats the recording of the mark signal at a predetermined interval during the recording of the setting signal.

Claim 18 (Original): The information recording medium according Claim 16, wherein the mark signal recording device repeats the recording of the mark signal at a predetermined interval during the recording of the setting signal.

Claim 19 (Currently Amended): The information recording medium according to Claim 17, wherein the checking device further comprises:

a position retrieving device for retrieving a predicted position of the setting area on the recording medium where the special detected signal is to be optically detected;

a first moving device for moving an executing device for detecting the setting signal and the special detected signal, from the retrieved predicted position, to a retrieval starting position on the recording medium distant from there at least by a distance corresponding to the predetermined interval; and

a second moving device for repeating an operation of further moving the executing device again from the special detected signal-detected position on the recording medium to a position on the recording medium distant from there at least by a distance corresponding to the predetermined interval, when the special detected signal is detected while the executing device is moved from the retrieval starting position to the predicted position, and further moving the executing device to the predicted position, from a position of the executing device after the above further moving used as the retrieval starting position, so as to check whether the special detected signal is detected or not; and

the ~~retrieving~~ locating device regards the setting area adjacent to the setting area where the special detected signal detected last is recorded as the non-used setting area, when none of the special detected signal is detected while the executing device is moved from the retrieval starting position to the predicted position.

Claim 20 (Original): The information recording medium according to Claim 15, wherein the recording parameter is intensity of an optical beam for use in the information recording.

Claim 21 (Currently Amended): The information recording medium according Claim 15,[[,]] wherein the setting program further causes the setting computer to function as:

a recording device for executing the information recording by use of the set recording parameter.

Claim 22 (Currently Amended): A computer data signal embodied in a carrier wave and representing a sequence of instructions, which is executed by a setting computer, which is included in a recording parameter setting apparatus for setting a recording parameter for use in optical information recording on the recording medium, using any one of a plurality of setting areas previously provided on the recording medium, said instructions comprising the steps of:

checking whether a special detected signal is optically detected or not from the setting areas;

~~retrieving~~ locating a non-used area that is the setting area where no special detected signal is detected, of the setting areas, based on the check result of the step of checking;

optically recording a mark signal for obtaining the special detected signal optically, in the ~~detected~~ non-used setting area;

recording a setting signal for setting the recording parameter, at least, in the non-used setting area excluding an area where the mark signal is recorded; and

setting the recording parameter by optically detecting the recorded setting signal.

Claim 23 (Original): The computer data signal embodied in a carrier wave and representing a sequence of instructions according to Claim 22, wherein

the step of optically recording the mark signal records the mark signal at a position detected prior to the setting signal recorded in the non-used setting area.

Claim 24 (Original): The computer data signal embodied in a carrier wave and representing a sequence of instructions according Claim 22, wherein

the step of optically recording the mark signal repeats the recording of the mark signal at a predetermined interval during the recording of the setting signal.

Claim 25 (Original): The computer data signal embodied in a carrier wave and representing a sequence of instructions according Claim 23, wherein

the step of optically recording the mark signal repeats the recording of the mark signal at a predetermined interval during the recording of the setting signal.

Claim 26 (Currently Amended): The computer data signal embodied in a carrier wave and representing a sequence of instructions according to Claim 24, wherein the step of checking further comprises the steps of:

retrieving a predicted position of the setting area on the recording medium where the special detected signal is to be optically detected;

moving an executing device for detecting the setting signal and the special detected signal, from the retrieved predicted position, to a retrieval starting position on the recording medium distant from there at least by a distance corresponding to the predetermined interval; and

repeating an operation of further moving the executing device again from the special detected signal-detected position on the recording medium to a position on the recording medium distant from there at least by a distance corresponding to the predetermined interval, when the special detected signal is detected while the executing device is moved from the retrieval starting position to the predicted position, and further moving the executing device to the predicted

position, from a position of the executing device after the above further moving used as the retrieval starting position, so as to check whether the special detected signal is detected or not, and

the step of ~~retrieving~~ locating the non-used area regards the setting area adjacent to the setting area where the special detected signal detected last is recorded as the non-used setting area, when none of the special detected signal is detected while the executing device is moved from the retrieval starting position to the predicted position.

Claim 27 (Original): The computer data signal embodied in a carrier wave and representing a sequence of instructions according to Claim 22, wherein

the recording parameter is intensity of an optical beam for use in the information recording.

Claim 28 (Original): The computer data signal embodied in a carrier wave and representing a sequence of instructions according to Claim 22, wherein said instructions further comprises the step of executing the information recording by use of the set recording parameter.